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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,604	07/23/2003	Masaru Minami	SON-2793	7599

23353 7590 09/21/2005

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WASHINGTON, DC 20036

EXAMINER

KOVALICK, VINCENT E

ART UNIT	PAPER NUMBER
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2677

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,604

Applicant(s)

MINAMI, MASARU

Examiner

Vincent E. Kovalick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to Applicant's Patent Application, Serial No. 10/624,604, with a File Date of July 23, 2003.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (Pub. No. US 2001/0040667) taken with Ruedin et al. (USP 6,004,423).

Relative to claims 1 and 4, Sasaki **teaches** a fabrication method of a Liquid Crystal Display panel (pg. 1, paras. 0002-0010); Sasaki further **teaches** a display apparatus comprising spacers interposed between a first panel substrate and a second panel substrate and so formed as to be elastically deformable (pg. 2, paras 0015 and 0049).

Sasaki **does not teach** a plurality of projected portions provided at each spacer mount position on said first panel substrate, wherein each said space is fastened to said plurality of projected portions by a recoil strength obtained when each said spacer is elastically deformed.

Ruedin et al. **teaches** manufacturing method for a batch of laminated cells and laminated cells thereby obtained (col. 1, lines 61-67 and col. 2, lines 1- 42); Ruedin et al. further **teaches**

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a plurality of projected portions provided at each spacer mount position on said first panel substrate, wherein each said space is fastened to said plurality of projected portions by a recoil strength obtained when each said spacer is elastically deformed.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Sasaki the feature as taught by Ruedin et al in order to put in place the means (spacers) to reestablish the substrate state following a deformed period.

4. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki taken with Ruedin et al. as applied to claim 1 in item 3 hereinabove, and further in view of Gonzelez et al. (Pub. No. US 2002/0053688) taken with Nemelka (Pub. No. US 2002/0053515). Regarding claim 2, Sasaki taken with Ruedin et al. **does not teach** a said display apparatus comprising each spacer formed in a rectilinear shape; whereby each said spacer is supported in a curved line shape.

Sasaki taken with Ruedin et al. teaches a fabrication method of a Liquid Crystal Display panel. Gonzalez et al. **teaches** a semi-conducteur raised source-drain structure (pg. 1, paras. 0009-0010); Sasaki further **teaches** each spacer formed in a rectilinear shape (pg. 2, para. 0028).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Sasaki take with Ruedin et al. feature as taught by Gonzalez et al. in order to apply spacers that best fit the contour of the substrates to which they are applied. Sasaki taken with Ruedin et al. in view of Gonzalez et al. **does not teach** whereby each spacer is supported in a curved line shape.

Nemelka **teaches** patternable material on surface with structures thereon such as spacers use in flat panel displays.(pg. 2, paras. 0011-9924); Nemelka further **teaches** whereby each said spacer

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is supported in various shapes including a curved line shape (pg. 4, para. 0042). It being understood that the said various shapes could include rectilinear shape.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Sasaki take with Ruedin et al. in view of Gonzalez et al feature as taught by Nemelka in order adapt the spacers to a substrate with a curved line shape. Regarding claim 3, Gonzalez et al. further **teaches** each spacer formed in a cured line shape (pg. 2, para 0028).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


U. S. Patent No.	6,580,206	Koyanagi et al.
Pub. No.	US 2003/0043333	Miyazaki
Pub No.	US 2002/0027636	Yamada

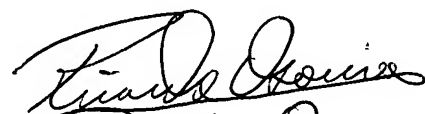
To Respond

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 703 306-3020. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Vincent E. Kovalick
September 17, 2005


Ricardo Osorio
PRIMARY EXAMINER